Proposed Rule

STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF SOLID AND HAZARDOUS WASTE
ADMINISTRATIVE RULEMAKING

UTAH ADMINISTRATIVE CODE
R315-1 TO R315-14, R315-50, AND R315-101

Revised Waste Listings, Land Disposal Restrictions and Exemptions for Nonhazardous Wastes

Action: Proposed Rule

For the reasons set out in the Preamble, Parts R315-1 to R315-14, R315-50, and R315-101 of the Utah Administrative Code are proposed to be amended as follows. These amendments are effective on (insert date 9 months from publication of the final rule). Facilities are required to submit permit modification requests, or modified permit applications (for new facilities), by (insert date 9 months from publication of the final rule). Wastes generated after the effective date of the rule are required to use the new waste codes as identified in the final rule. Wastes in storage before the effective date of the final rule can remain in storage with the existing waste description up to the time of treatment or disposal. New waste codes must be assigned before removal of stored waste from storage for treatment or disposal.

Part R315-2-10 - Lists of Hazardous Waste

1. Revise Part R315-2-10(e) as follows:

(e) The listing of hazardous wastes from nonspecific sources found in Title 40, Code of Federal Regulations (CFR) Part 261.31, as amended, is adopted and incorporated by reference.

2. Remove item (1) from Part R315-2-10(e).

3. Revise Part R315-2-10 by adding (g), (h), (i), (j), (k), (l), (m), (n) and (o) as follows:

(g) The following additional wastes are added to the listing of wastes from specific sources found in 40 CFR 261.32, as amended. The hazard code (I = Ignitable, C = Corrosive, R = Reactive, E = Toxicity Characteristic Waste,

H = Acute Hazardous Waste, T = Toxic Waste) for these wastes is indicated in parenthesis.

(1) ***K901*** - Spent chemical neutralization solutions (including solids or particulates contained therein) used to neutralize chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(2) ***K902*** - Miscellaneous, physically solid, nonpermeable materials, such as glass or metal, that were contaminated with chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(3) ***K903*** - Miscellaneous physically solid, permeable materials, such as spent laboratory, monitoring and testing materials (including syringes, tubing, rags and wipes, gloves, aprons, and protective suits), wood, plastics, and organic materials, that were contaminated with chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(4) ***K904*** - Miscellaneous aqueous or nonaqueous liquid materials, such as antifreeze, refrigerants, and hydraulic fluids, that were contaminated with chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(5) ***K905*** - Spent carbon from both air filtration equipment and personal protective equipment that were contaminated with chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(6) ***K906*** - Ash, cyclone residue, and baghouse dust from incineration of chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(7) ***K907*** - Slag and refractory generated from incineration of chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(8) ***K908*** - Brine salts, liquids, solids and sludges generated from pollution abatement systems, including those used in conjunction with incineration, thermal drying, or chemical neutralization, employed in operations with chemical(s) listed in R315-2-11(e)(1) or (f)(1). (T)

(h) Wastes identified in (g) above are hazardous wastes unless they have been excluded as provided in R315-2-16, R315-2-17, or R315-2-26.

(i) In cases where research or testing is being conducted, the listings described in (g) above do not apply (i.e., waste is not generated) until after the test, which may involve chemical neutralization, incineration, or some other form of treatment, has been completed.

(j) Chemical analyses of wastes identified in (g) above that are required by regulations in R315-1 through R315-101 shall only be required for specific chemical(s) listed in R315-50-9 that the generator determines, through testing or process knowledge, may be contained in the waste.

(k) Items that have come into direct physical contact with wastes described in R315-2-10(g)(2), (g)(3) and (g)(7) above, such as wooden pallets, are not considered hazardous waste and are not subject to Part R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code.

(l) Munition bodies, ton containers, and other metal components of devices that have held chemical agents are defined as scrap metal and are regulated under the K902 listing identified in (g) above.

(m) For waste materials that are initially unknown as to their listing category under (g) above, the listing category under (g) above does not attach until the waste is identified as belonging to one or more of the waste classifications defined in (g) above.

(n) Generators may petition the State of Utah, Department of Environmental Quality, Division of Solid and Hazardous Waste (DSHW) under the procedures described in R315-16 to exclude small-volume wastes described in (g) above from hazardous waste regulations defined under Parts R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code. Generators pursuing this small-volume exclusion must demonstrate that the level of protectiveness reasonably expected to be obtained by alternative controls will functionally meet or exceed the level of protectiveness that would otherwise be afforded if the waste were regulated as hazardous under Parts R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code.

(o) Wastes described in (g) above are defined as wastewaters or nonwastewaters in accordance with definitions established under 40 CFR 268.2, as adopted under R315-13. Nonwastewaters are further defined as "nonwastewater liquids" or "nonwastewater solids" on the basis of application of the U.S. Environmental Protection Agency's (EPA's) Paint Filter Liquids Test (Method 9095A) as established in EPA's SW-846 Testing Manual (Test Methods for Evaluating Solid Waste - Physical/Chemical Methods). If liquids are detected from application of Method 9095A, the nonwastewater is defined as a "nonwastewater liquid." Otherwise, the waste is defined as a "nonwastewater solid." Generators may apply process knowledge in lieu of performing Method 9095A.

Part R315-2-11. Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof.

4. Revise R315-2-11(e) as follows:

(e) The listing of commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates found in 40 CFR 261.33(e), as amended, is adopted and incorporated by reference.

5. Remove Item 1 from R315-2-11(e).

6. Add new Items 1, 2, 3, 4, 5, 6, 7, and 8 to R315-2-11(e) as follows:

(1) The following additional commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates are added to R315-2-11(e):

Commercial Chemical Products Added to R315-2-11(e)

Hazardous Waste No.	Chemical Abstracts No.	Substance [Common Name(s), if Available]
P901	107-44-8	O-Isopropyl methylphosphonofluoridate [GB, sarin]
P902	77-81-6	O-Ethyl N,N-dimethyl phosphoramidocyanidate [GA, tabun]
P903	50782-69-9	O-Ethyl S-(2-diisopropylaminoethyl) methylphosphonothioate [VX]
P904	505-60-2	Bis(2-chloroethyl) sulfide [H, HD, mustard gas]
P905	541-25-3	2-Chlorovinyldichloroarsine [L, L1, lewisite 1, lewisite]
P906	538-07-8	Bis(2-chloroethyl)ethylamine [HN1]
P907	555-77-1	Tris(2-chloroethyl)amine [HN3]

Hazardous Waste No.	Chemical Abstracts No.	Substance [Common Name(s), if Available]
P908	505-60-2 and 541-25-3	Mixture of Bis(2-chloroethyl) sulfide and 2-chlorovinyldichloroarsine [HL]
P909	505-60-2 and 3563-36-8	Mixture of Bis(2-chloroethyl) sulfide and 1,2-Bis(2-chloroethylthio)ethane [HQ]
P910	505-60-2 and 63918-89-8	Mixture of Bis(2-chloroethyl) sulfide and Bis(2-chloroethylthioethyl) ether [HT]

(2) Wastes identified in (1) above are identified as acute hazardous wastes (H).

(3) Wastes identified in (1) above are hazardous wastes unless they have been excluded as provided in R315-2-16, R315-2-17, or R315-2-26.

(4) Chemical analyses of wastes identified in (1) above that are required by regulations in R315-1 through R315-101 shall only be required for specific chemical(s) listed in (1) above that the generator determines, through testing or process knowledge, may be contained in the waste.

(5) The wastes identified in (1) above do not include wastes derived from the treatment, storage, or disposal of these chemicals. Derived-from wastes are listed under R315-2-10(g).

(6) For waste materials that are initially unknown as to their listing category under (1) above, the listing category under (1) above does not attach until the waste is identified as belonging to one or more of the waste classifications defined in (1) above.

(7) Generators may petition DSHW under the procedures described in R315-16 to exclude small-volume wastes identified in (1) above from hazardous waste regulations defined under Parts R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code. Generators pursuing this small-volume exclusion must demonstrate that the level of protectiveness reasonably expected to be obtained by alternative controls will functionally meet or exceed the level of protectiveness that would otherwise be afforded if the waste were

regulated as hazardous under Parts R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code.

(8) Wastes described in (1) above are defined as wastewaters or nonwastewaters in accordance with definitions established under 40 CFR 268.2, as adopted under R315-13. Nonwastewaters are further defined as "nonwastewater liquids" or "nonwastewater solids" on the basis of application of EPA's Paint Filter Liquids Test (Method 9095A) as established in EPA's SW-846 Testing Manual (Test Methods for Evaluating Solid Waste - Physical/Chemical Methods). If liquids are detected from application of Method 9095A, the nonwastewater is defined as a "nonwastewater liquid." Otherwise, the waste is defined as a "nonwastewater solid." Generators may apply process knowledge in lieu of performing Method 9095A.

7. Revise Part R315-2-11(f) as follows:

(f) The listing of commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates found in 40 CFR 261.33(f), as amended, is adopted and incorporated by reference.

8. Add new Items 1, 2, 3, 4, 5, 6, 7, and 8 to Part R315-2-11(f).

(1) The following additional commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates are added to R315-2-11(f):

Commercial Chemical Products
Added to R315-2-11(f)

Hazardous Waste No.	Chemical Abstracts No.	Substance [Common Name(s), if Available]
U901	578-94-9	Phenylarsazine chloride [DM, adamsite]
U902	13004-56-3	3-Quinuclidinyl benzilate [BZ]

(2) Wastes identified in (1) above are identified as toxic hazardous wastes (T).

(3) Wastes identified in (1) above are hazardous wastes unless they have been excluded as provided in R315-2-16, R315-2-17, or R315-2-26.

(4) Chemical analyses of wastes identified in (1) above that are required by regulations in R315-1 through R315-101 shall only be required for specific chemical(s) listed in (1) above that the generator determines, through testing or process knowledge, may be contained in the waste.

(5) The wastes identified in (1) above do not include wastes derived from the treatment, storage, or disposal of these chemicals. Derived-from wastes are listed under R315-2-10(g).

(6) For waste materials that are initially unknown as to their listing category under (1) above, the listing category under (1) above does not attach until the waste is identified as belonging to one or more of the waste classifications identified in (1) above.

(7) Generators may petition DSHW under the procedures described in Part R315-16 to exclude small-volume wastes identified in (1) above from hazardous waste regulations defined under Parts R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code. Generators pursuing this small-volume exclusion must demonstrate that the level of protectiveness reasonably expected to be obtained by alternative controls will functionally meet or exceed the level of protectiveness that would otherwise be afforded if the waste were regulated as hazardous under Parts R315-1 to R315-14, R315-50, or R315-101 of the Utah Administrative Code.

(8) Wastes described in (1) above are defined as wastewaters or nonwastewaters in accordance with definitions established under 40 CFR 268.2, as adopted under R315-13. Nonwastewaters are further defined as "nonwastewater liquids" or "nonwastewater solids" on the basis of application of EPA's Paint Filter Liquids Test (Method 9095A) as established in EPA's SW-846 Testing Manual (Test Methods for Evaluating Solid Waste - Physical/Chemical Methods). If liquids are detected from application of Method 9095A, the nonwastewater is defined as a "nonwastewater liquid." Otherwise, the waste is defined as a "nonwastewater solid." Generators may apply process knowledge in lieu of performing Method 9095A.

Part R315-2-26. Exemption for Listed Hazardous Wastes Containing Low Concentrations of Hazardous Constituents.

9. Add a new Part R315-2-26, entitled "Exemption for Listed Hazardous Wastes Containing Low Concentrations of Hazardous Constituents" as follows:

(a) Exemptions.

(1) Waste Codes P901 through P910, and U901 through U902, or any mixture of such waste with a solid waste, that do not exhibit any of the characteristics of hazardous waste and that meet all the requirements in R315-2-26(b)-(d) are exempt from all requirements of Parts R315-1 to R315-14, R315-50, and R315-101 of the Utah Administrative Code.

(2) Waste Codes K901 through K908, any mixture of such waste with a solid waste, and any waste derived from the treatment, storage, or disposal of such waste, that do not exhibit any of the characteristics of hazardous waste and that meet all the requirements in R315-2-26(b)-(d), are exempt from all requirements of Parts R315-1 to R315-14, R315-50, and R315-101 of the Utah Administrative Code.

(3) Exemption levels for constituents are provided in Appendix I to this part.

(4) Only wastes identified in (1) and (2) above that are defined as "nonwastewater solids" shall qualify for this exemption. Generators may remove liquids from nonwastewater liquids, by various means, such that they are classified as nonwastewater solids.

(5) Wastes (including wastewaters and nonwastewater liquids) that do not qualify for exemption, as described herein, may still be delisted through the requirements outlined in R315-2-16.

(b) Requirements for qualifying for an exemption.

(1) Testing requirements.

(i) For each waste for which an exemption is claimed, the claimant must test for all of the constituents added to these regulations under R315-50-9 except those that the claimant determines should not be present in the waste. The claimant is required to document the basis of each determination that a constituent should not be present.

Note: Any claim under this section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a claimant from liability should that constituent later be found in the waste.

(ii) The claimant must develop a sampling and analysis plan for each waste for which an exemption is sought. The plan must identify sampling procedures and locations sufficient to characterize the entire waste for which the exemption is claimed and analytical methods that the claimant will use to determine the total concentration of each constituent on Appendix I to this part. Analytical methods whose detection limit(s) are equal to or below the exemption level(s) provided in Appendix I to this part must be used or the waste does not qualify for exemption.

(iii) The claimant must conduct sampling and analysis in accordance with the plan.

(iv) The results of the sampling and analysis must show that all relevant Appendix VII (as adopted in R315-50-9) constituent concentrations in the waste are at or below the exemption levels in Appendix I to this part.

(2) Notification to State of Utah Solid and Hazardous Waste Control Board. Prior to managing any waste as exempt under this section, the claimant must send to the Board, via mail service that provides written confirmation of delivery, a notification of the exemption claim meeting the following requirements:

(i) The name, address, and Resource Conservation and Recovery Act identification (RCRA ID) number of the claimant's facility;

(ii) The applicable Hazardous Waste Codes as established in the Utah Administrative Code;

(iii) A brief description of the process that generated the waste;

(iv) An estimate of the average and maximum monthly and annual quantities of each waste claimed to be exempt;

(v) Documentation for any claim that a constituent is not present as described under R315-2-26(b)(1)(I);

(vi) The results of all analyses and estimates of constituent concentrations required under R315-2-26(b)(1)(iv) and all detection limits achieved;

(vii) Evidence that the public notification requirements of R315-2-26(b)(3) will be satisfied; and

(viii) The following statement signed by the person claiming the exemption or an authorized representative:

"Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of R315-2-26(b) have been met for all waste identified in this notification. Copies of the records and information required at R315-2-26(d)(6) are available at [the claimant's facility]. Based upon my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(3) Public Notice. Within 2 weeks of issuance of the notice described in (2) above, the claimant must submit for publication in a major newspaper of general circulation, local to the claimant, a notice entitled "Notification of Exemption Claim for Listed Hazardous Waste Containing Low Concentrations of Hazardous Constituents Under the Utah Hazardous Waste Management Rules" containing the following information:

(i) The name, address, and RCRA ID number of the claimant's facility;

(ii) The applicable hazardous waste code of the waste for which the exemption is claimed and the narrative description associated with the listing from Parts R315-2-10(g) or R315-2-11(e)(1) or R315-2-11(f)(1);

(iii) A brief, general description of the manufacturing, treatment, or other process or operation producing the waste;

(iv) An estimate of the average and maximum monthly and annual quantities of the waste claimed to be exempt; and

(v) The name and mailing address of the State of Utah Solid and Hazardous Waste Control Board where comments may be submitted.

(c) Effectiveness of Exemption. No claim shall take effect until the claimant receives a notice approving the exemption from the Executive Secretary of the State of Utah Solid and Hazardous Waste Control Board.

(d) Conditions for Maintaining the Exemption. To maintain an exemption claimed pursuant to this section, the claimant must satisfy the following conditions:

(1) Changes in Information. The claimant must submit to the Board any change in any information submitted under R315-2-26(b)(4) within 10 business days of the claimant's first knowledge of the change.

(2) Schedule for Retesting. The claimant must retest the waste for which the exemption was claimed on an annual basis.

(3) Sampling and Analysis Plan. For every retest, the claimant must comply with sampling and analysis plan requirements identified in (b)(1)(ii) above.

(4) Exemption Levels. The concentrations of all constituents tested must meet the criteria set out in R315-2-26(b)(1)(iv).

(5) Records. The claimant must maintain records of the following information in files on-site for 3 years after the date of the relevant test:

(i) For initial testing, all information submitted under R315-2-26(b)(1), all revisions to such material submitted under R315-2-26(d)(1), and all information required to be maintained under R315-2-26(d)(5)(iii);

(ii) For retests, all sampling and analysis plans required under R315-2-26(d)(3), all analytical results required to be assessed under R315-2-26(d)(4); and

(iii) For both initial tests and retests, the claimant must also retain records of:

(A) The dates and times waste samples were obtained, and the dates of the analyses;

(B) The names and qualifications of the person(s) who obtained the samples;

(C) A description of the temporal and spatial locations of the sampling points;

(D) The name and address of the laboratory facility at which the samples were analyzed;

(E) A description of the analytical methods used, including any cleanup and extraction methods;

(F) All detection limits achieved and all quality control results (including any method blanks, duplicate analyses, and matrix spikes), laboratory quality assurance data, and a description of any deviations from published analytical methods or from the plan; and

(G) All laboratory documentation supporting the analytical results.

(e) Exemption from Part 268 Requirements, as adopted in R315-13. If all hazardous constituent levels in a waste qualifying for exemption are at or below the concentration levels shown in Appendix I to this part, the waste is exempt from all requirements of Part 268 of this chapter, as adopted in R315-13.

(f) Nothing in this part preempts, overrides, or otherwise negates the provision in 40 CFR 262.11, as adopted in R315-5-2, that requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(g) In an enforcement action, the burden of proof to establish conformance with the exemption criteria shall be on the claimant.

(h) Failure to satisfy any of the above requirements voids the exemption and requires management of the waste for which the exemption has been claimed as hazardous waste. This provision includes the situation when an exempted waste is determined to contain hazardous constituents above exemption levels as established in Appendix I to this part due to retesting.

(i) If any exempted waste loses its exemption under paragraph (h) of this section, an application may be filed with the Board for reinstatement of the exemption from hazardous waste regulation with respect to such waste as soon as the waste is returned to compliance with the conditions of (b)-(d) of this section. If the Board finds that reinstatement of the exemption is appropriate based on factors such as the claimant's provision of a satisfactory explanation of the circumstances of the loss of exemption, or a demonstration that the loss of exemption is not likely to recur, the Board may reinstate the exemption. If the Board does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Board may terminate an exemption reinstated by default in the preceding sentence if the Board finds that reinstatement is inappropriate on

the basis of factors such as the claimant's failure to provide a satisfactory explanation of the circumstances of the loss of exemption or failure to demonstrate that the loss of exemption is not likely to recur. In reinstating the exemption, the Board may specify additional conditions as are necessary to ensure and document compliance.

Appendix I is established as follows:

Exemption Levels[a]

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Nonwastewater Solids (mg/kg)
GB, Sarin	O-Isopropyl methylphosphonofluoridate	107-44-8	32
GD, Soman	O-Pinacolyl methylphosphonofluoridate	96-64-0	5.2
GA, Tabun	O-Ethyl N,N-dimethyl phosphoramidocyanidate	77-81-6	68
GF	Cyclohexyl methylphosphonofluoridate	329-99-7	5.2
VX	O-Ethyl S-(2-diisopropylaminoethyl) methylphosphonothioate	50782-69-9	1.1
H, HD, Mustard Gas	Bis(2-chloroethyl) sulfide	505-60-2	0.3
L, L1 Lewisite	2-Chlorovinyldichloroarsine	541-25-3	3.7
HN1	Bis(2-chloroethyl)ethylamine	538-07-8	0.3
HN3	Tris(2-chloroethyl)amine	555-77-1	0.3
DM,[b] Adamsite	Phenylarsazine chloride	578-94-9	NA[c]
Q Mustard	1,2-Bis(2-chloroethylthio)ethane	3563-36-8	0.3
T Mustard	Bis(2-chloroethylthioethyl) ether	63918-89-8	0.3
Lewisite 2	Bis(2-chlorovinyl)chloroarsine	40334-69-8	3.7
Lewisite 3	Tris(2-chlorovinyl)arsine	40334-70-1	3.7

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Nonwastewater Solids (mg/kg)
EA2192	S-(2-diisopropylaminoethyl) methylphosphonothioic acid	73207-98-4	1.1
LO, Lewisite oxide[d]	2-Chlorovinylarsenous oxide	3088-37-7	3.7
Vx	S-2(2-diethylamino)ethyl O-isobutyl methylphosphonothioate	159939-87-4	1.1
CK[e]	Cyanogen chloride	506-77-4	NA
CG[e]	Phosgene	75-44-5	NA
BZ[b]	3-Quinuclidinyl benzilate	13004-56-3	NA
HF[e]	Hydrogen fluoride/hydrofluoric acid	7664-39-3	NA
Chloroform[e]	Trichloromethane	67-66-3	NA
Arsenic[e]	Arsenic	7440-38-2	NA

[a] Refer to Preamble Section XI for supporting information.

[b] Exemptions are not currently available for these chemicals.

[c] NA = not applicable.

[d] LO hydrolyzes to 2-chlorovinylarsonous acid (CVAA) in aqueous systems.

[e] These chemicals are already regulated as hazardous constituents under RCRA; the proposed rule will not affect these listings.

Part R315-13. Land Disposal Restrictions

10. Replace Part R315-13-1 with the following:

(a) The requirements as found in 40 CFR 268, as amended, are adopted and incorporated by reference. Unless otherwise specified herein, the requirements as found in 40 CFR 268, as amended, apply to waste codes K901 through K908, P901 through P910, and U901 through U902.

(b) Variances from treatment requirements, including no-migration petitions, pertaining to waste codes K901 through K908, P901 through P910, and U901

through U902 shall be subject to evaluation and approval by the Executive Secretary of the State of Utah Solid and Hazardous Waste Control Board (the Board).

(c) Substitute "Board" for all federal regulation references made to "Administrator" or "Regional Administrator" with the exception of 40 CFR 268.40(b). "Board" is substituted for references made to "Administrator" or "Regional Administrator" in 40 CFR 268.40(b), but only as applies to waste codes K901 through K908, P901 through P910, and U901 through U902.

(d) Substitute Utah Code Annotated, 19-6, for all references to RCRA.

(e) Nothing in these regulations shall prohibit the generator of the waste, or treatment, storage or disposal facilities, from conducting or arranging for the treatment of waste to meet land disposal restriction (LDR) treatment requirements at off-site facilities.

11. Add a new Part R315-13-2, entitled "Waste-Specific Prohibitions — Waste Codes K901 through K908, P901 through P910, and U901 through U902" as follows:

(a) Waste codes K901 through K908, P901 through P910, and U901 through U902 are prohibited from land disposal, unless:

(1) The wastes meet the applicable LDR treatment standards specified in R315-13-3 or R315-13-4,

(2) Persons have been granted an exemption from a prohibition pursuant to a no-migration petition under 40 CFR 268.6, as adopted in R315-13-1(a and b),

(3) The wastes meet applicable alternative standards established pursuant to a treatability variance petition granted under 40 CFR 268.44, as adopted in R315-13-1(a and b),

(4) Persons have been granted a capacity variance extension to the effective date of a prohibition pursuant to 40 CFR 268.5, as adopted in R315-13-1(a and b), or

(5) Wastes have been exempted per the requirements of R315-2-26.

(6) Wastes have been excluded per the small-volume provisions of R315-2-10(n), R315-2-11(e)(7), or R315-2-11(f)(7).

(b) Generators of waste codes K901 through K908, P901 through P910, and U901 through U902 that intend to treat their wastes in accordance with the standards provided in R315-13-3 are required to either test a representative sample of the waste before treatment to determine if the waste exceeds applicable treatment standards, or apply knowledge of the waste before treatment to determine if the waste exceeds applicable treatment standards. Treatment facilities that treat wastes in accordance with the standards provided in R315-13-3 and disposal facilities that dispose of wastes that have been treated in accordance with the standards provided in R315-13-3 are not required to test treatment residues before disposal to prove that treatment standards identified in R-315-13-3 have been met.

(c) Generators of waste codes K901 through K908, P901 through P910, and U901 through U902 that intend to treat their wastes in accordance with the standards provided in R315-13-4 are required to either test a representative sample of the waste before treatment to determine if the waste exceeds applicable treatment standards, or apply knowledge of the waste before treatment to determine if the waste exceeds applicable treatment standards. Treatment facilities that treat wastes in accordance with the standards provided in R315-13-4 and disposal facilities that dispose of wastes that have been treated in accordance with the standards provided in R315-13-4 are required to test treatment residues after treatment is complete to prove that treatment standards identified in R-315-13-4 have been met.

12. Add a new Part R315-13-3, entitled "Treatment Standards Expressed as Technologies for Waste Codes K901 through K908, P901 through P910, and U901 through U902", as follows:

(a) The following treatment technologies are added to 40 CFR 268.42, Table 1 — Technology Codes and Description of Technology-Based Standards:

Technology Codes and Description of Technology-Based Standards[a]

Technology Code	Description of Technology-Based Standards
CNEUT	Chemical Neutralization - Chemical oxidation and/or hydrolysis using the following reagents (or waste reagents) or combination of reagents: (1) hypochlorite (e.g., bleach, super tropical bleach, high-test hypochlorite); (2) sodium hydroxide; (3) sodium carbonate; and/or (4) other oxidizing or hydrolyzing agents of sufficient efficiency, and in combination with organic solvents if appropriate.

[a] Incineration (INCIN) is already specified under 40 CFR 268 (adopted by DSHW under R315-13) as an LDR treatment technology.

(b) The following wastes are added to 40 CFR 268.42, Table 2 -Technology-Based Standards by RCRA Waste Code:

Technology-Based LDR Standards

Waste Code	See Also	Waste Descriptions and/or Treatment Subcategory	CAS No. for Regulated Hazardous Constituents	Technology Code Wastewaters or Nonwastewaters
K901	R315-13-4	See R315-2-10(g)(1)	See R315-50-9	K901 is a LDR treatment residual from application of CNEUT and meets LDR treatment standards as generated[a]
K902	R315-13-4	See R315-2-10(g)(2)	See R315-50-9	INCIN or CNEUT
K903	R315-13-4	See R315-2-10(g)(3)	See R315-50-9	INCIN or CNEUT
K904	R315-13-4	See R315-2-10(g)(4)	See R315-50-9	INCIN or CNEUT
K905	R315-13-4	See R315-2-10(g)(5)	See R315-50-9	INCIN or CNEUT

Waste Code	See Also	Waste Descriptions and/or Treatment Subcategory	CAS No. for Regulated Hazardous Constituents	Technology Code Wastewaters or Nonwastewaters
K906	R315-13-4	See R315-2-10(g)(6)	See R315-50-9	K906 is a LDR treatment residual from application of INCIN and meets LDR treatment standards as generated
K907	R315-13-4	See R315-2-10(g)(7)	See R315-50-9	K907 is a LDR treatment residual from application of INCIN and meets LDR treatment standards as generated
K908	R315-13-4	See R315-2-10(g)(8)	See R315-50-9	K908 is a LDR treatment residual from application of INCIN and meets LDR treatment standards as generated
P901	R315-13-4	See R315-2-11(e)(1)	107-44-8	INCIN or CNEUT
P902	R315-13-4	See R315-2-11(e)(1)	77-81-6	INCIN or CNEUT
P903	R315-13-4	See R315-2-11(e)(1)	50782-69-9	INCIN or CNEUT
P904	R315-13-4	See R315-2-11(e)(1)	505-60-2	INCIN or CNEUT
P905	R315-13-4	See R315-2-11(e)(1)	541-25-3	INCIN or CNEUT
P906	R315-13-4	See R315-2-11(e)(1)	538-07-8	INCIN or CNEUT
P907	R315-13-4	See R315-2-11(e)(1)	555-77-1	INCIN or CNEUT
P908	R315-13-4	See R315-2-11(e)(1)	505-60-2 and 541-25-3	INCIN or CNEUT
P909	R315-13-4	See R315-2-11(e)(1)	505-60-2 and 3563-36-8	INCIN or CNEUT

Waste Code	See Also	Waste Descriptions and/or Treatment Subcategory	CAS No. for Regulated Hazardous Constituents	Technology Code Wastewaters or Nonwastewaters
P910	R315-13-4	See R315-2-11(e)(1)	505-60-2 and 63918-89-8	INCIN or CNEUT
U901	R315-13-4	See R315-2-11(f)(1)	13004-56-3	NA[b]
U902	R315-13-4	See R315-2-11(f)(1)	578-94-9	NA[b]

[a] Exceptions are: K901 generated from the Rapid Response System (RRS) or Munitions Management Device (MMD); the technology code for these wastes is INCIN. K901 generated from chemical neutralization of P905 (lewisite); the technology code for these wastes is STABL (stabilization).

[b] NA = not applicable; an LDR treatment technology is not currently available for U901 or U902.

(c) Treatment standards expressed as technologies as identified in R315-13-3(b) must be applied for wastes with one or more constituents listed in R315-50-9 for which no numerical LDR treatment standard is available in R315-13-4.

(d) Treatment standards expressed as technologies as identified in R315-13-3(b) must be applied for wastes with one or more constituents whose treatment standards in R315-13-4 are below analytical detection limit criteria using standing operating procedures for chemical analytical methods.

(e) Either treatment standards expressed as technologies as described in R315-13-3(b) or treatment standards expressed as concentrations as identified in R315-13-4 may be applied for wastes with all constituents whose treatment standards in R315-13-4 are above analytical detection criteria using standing operating procedures for chemical analytical methods.

(f) In cases where research or testing is being conducted and where CNEUT or INCIN is conducted as part of the test, the waste meets LDR treatment standards as generated.

(g) Treatment residuals from wastes treated in accordance with the standards provided in R315-13-3 remain hazardous waste unless delisted in accordance with R315-2-16, excluded per R315-2-17, or exempted per R315-2-26.

(h) If the waste is otherwise defined as hazardous waste (e.g., exhibits a hazardous waste characteristic), additional treatment may be required.

13. Add a new Part R315-13-4, entitled "Treatment Standards Expressed as Concentrations for Waste Codes K901 through K908, P901 through P910, and U901 through U902", as follows:

(a) The following constituents are added to 40 CFR 268.48, Table UTS — Universal Treatment Standards:

LDR Treatment Standards[a]

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Nonwastewater Solids (mg/kg)	Nonwastewater Liquids (mg/L)	Wastewaters (mg/L)
GB, Sarin	O-Isopropyl methylphosphonofluoridate	107-44-8	320	8.3	8.3
GD, Soman	O-Pinacolyl methylphosphonofluoridate	96-64-0	52	0.3	0.3
GA, Tabun	O-Ethyl N,N-dimethyl phosphoramidocyanidate	77-81-6	680	20	20
GF	Cyclohexyl methylphosphonofluoridate	329-99-7	52	0.3	0.3
VX	O-Ethyl S-(2-diisopropylaminoethyl) methylphosphonothioate	50782-69-9	10	0.08	0.08
H, HD, Mustard Gas	Bis(2-chloroethyl) sulfide	505-60-2	6.7	0.7	0.7
L, L1 Lewisite	2-Chlorovinyldichloroarsine	541-25-3	37	3.3	3.3
HN1	Bis(2-chloroethyl)ethylamine	538-07-8	6.7	0.7	0.7
HN3	Tris(2-chloroethyl)amine	555-77-1	6.7	0.7	0.7
DM, Adamsite	Phenylarsazine chloride	578-94-9	NA[b]	NA	NA
Q Mustard	1,2-Bis(2-chloroethylthio)ethane	3563-36-8	6.7	0.7	0.7
T Mustard	Bis(2-chloroethylthioethyl) ether	63918-89-8	6.7	0.7	0.7

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Nonwastewater Solids (mg/kg)	Nonwastewater Liquids (mg/L)	Wastewaters (mg/L)
Lewisite 2	Bis(2-chlorovinyl)chloroarsine	40334-69-8	37	3.3	3.3
Lewisite 3	Tris(2-chlorovinyl)arsine	40334-70-1	37	3.3	3.3
EA2192	S-(2-diisopropylaminoethyl) methylphosphonothioic acid	73207-98-4	10	0.08	0.08
LO, Lewisite Oxide[c]	2-Chlorovinylarsenous oxide	3088-37-7	37	3.3	3.3
Vx	S-2(2-diethylamino)ethyl O-isobutyl methylphosphonothioate	159939-87-4	10	0.08	0.08
CK[d]	Cyanogen chloride	506-77-4	See 40 CFR 268.42	See 40 CFR 268.42	See 40 CFR 268.42
CG[d]	Phosgene	75-44-5	See 40 CFR 268.42	See 40 CFR 268.42	See 40 CFR 268.42
BZ	3-Quinuclidinyl benzilate	13004-56-3	NA[b]	NA	NA
HF[d]	Hydrogen fluoride/hydrofluoric acid	7664-39-3	See 40 CFR 268.48	See 40 CFR 268.48	See 40 CFR 268.48
Chloroform[d]	Trichloromethane	67-66-3	See 40 CFR 268.48	See 40 CFR 268.48	See 40 CFR 268.48
Arsenic[d]	Arsenic	7440-38-2	See 40 CFR 268.48	See 40 CFR 268.48	See 40 CFR 268.48

[a] Refer to Preamble Section XI for supporting information.

[b] NA = not applicable; an LDR concentration-based standard is currently not available for DM or BZ.

[c] LO hydrolyzes to 2-chlorovinylarsonous acid (CVAA) in aqueous systems.

[d] These chemicals are already regulated as hazardous constituents under RCRA; the proposed rule will not affect these listings.

(b) Treatment residues from wastes treated to meet the standards provided in R315-13-4 remain hazardous waste unless delisted in accordance with R315-2-16, excluded per R315-2-17, or exempted per R315-2-26.

(c) If the waste is otherwise defined as hazardous waste (e.g., exhibits a hazardous waste characteristic), additional treatment may be required.

14. Add a new Part R315-13-5, entitled "Additional Provisions" as follows:

(a) Waiver of Storage Prohibition. Waste Codes K901 through K908, P901 through P910, and U901 through U902 are not subject to the prohibition on storage or any other requirements of 40 CFR 268.50, as adopted in R315-13-1(a).

(b) Emerging Technologies. If the generator demonstrates that the technology is capable of routinely treating the waste in question to the LDR concentration-based standards specified in R315-13-4(a) in a safe and effective manner, DSHW will incorporate the technology into the hazardous waste rules as an approved LDR technology. A notice identifying the new LDR technology will be published in the state record.

R315-50-9. Basis for Listing Hazardous Waste

15. Revise R315-50-9 as follows:

The requirements of 40 CFR 261, Appendix VII, are adopted and incorporated by reference, excluding the constituents for which K064, K065, K066, K090, and K091 are listed.

16. Remove Item 1 from R315-50-9.

17. Add Items 1 and 2 in R315-50-9, as follows:

(1) The following constituents are added as a basis for listing waste streams K901, K902, K903, K904, K905, K906, K907 and K908:

Basis for Listing Waste Streams K901 through K908

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
GB, Sarin	O-Isopropyl methylphosphonofluoridate	107-44-8	P901
GD, Soman	O-Pinacolyl methylphosphonofluoridate	96-64-0	NA[a]

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
GA, Tabun	O-Ethyl N,N-dimethyl phosphoramidocyanidate	77-81-6	P902
GF	Cyclohexyl methylphosphonofluoridate	329-99-7	NA
VX	O-Ethyl S(-2-diisopropylaminoethyl) methylphosphonothioate	50782-69-9	P903
H, HD, Mustard Gas	Bis(2-chloroethyl) sulfide	505-60-2	P904
L, L1 Lewisite, Lewisite 1	2-Chlorovinyldichloroarsine	541-25-3	P905
HN1	Bis(2-chloroethyl)ethylamine	538-07-8	P906
HN3	Tris(2-chloroethyl)amine	555-77-1	P907
DM, Adamsite	Phenylarsazine chloride	578-94-9	U901
Q Mustard	1,2-Bis(2-chloroethylthio)ethane	3563-36-8	NA
T Mustard	Bis(2-chloroethylthioethyl) ether	63918-89-8	NA
Lewisite 2	Bis(2-chlorovinyl)chloroarsine	40334-69-8	NA
Lewisite 3	Tris(2-chlorovinyl)arsine	40334-70-1	NA
EA2192	S-(2-diisopropylaminoethyl) methylphosphonothioic acid	73207-98-4	NA
LO, Lewisite oxide[b]	2-Chlorovinylarsenous oxide	3088-37-7	NA
Vx	S-2(2-diethylamino)ethyl O-isobutyl methylphosphonothioate	159939-87-4	NA
CK[c]	Cyanogen chloride	506-77-4	P033

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
CG[c]	Phosgene	75-44-5	P095
BZ	3-Quinuclidinyl benzilate	13004-56-3	U902
HF[c]	Hydrogen fluoride/hydrofluoric acid	7664-39-3	U134
Chloroform[c]	Trichloromethane	67-66-3	U044
Arsenic[c]	Arsenic	7440-38-2	NA

[a] NA = not applicable.

[b] LO hydrolyzes to 2-chlorovinylarsonous acid (CVAA) in aqueous systems.

[c] These chemicals are already regulated as hazardous constituents under RCRA; the proposed rule will not affect these listings.

(2) Chemical analyses of wastes identified in R315-2-10 that are required by regulations in R315-1 through R315-101 shall only be required for specific chemical(s) listed in (1) above that the generator determines, through testing or process knowledge, may be contained in the waste.

R315-50-10. Hazardous Constituents

18. Revise R315-50-10 as follows:

The requirements of 40 CFR 261, Appendix VIII, are adopted and incorporated by reference, with the addition of the compounds identified in item (1) below.

19. Add a new R315-50-10(1) and add the following compounds to 40 CFR 261 Appendix VIII - Hazardous Constituents:

(1) The following compounds are added to 40 CFR 261, Appendix VIII:

Hazardous Constituents

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
GB, Sarin	O-Isopropyl methylphosphonofluoridate	107-44-8	P901
GD, Soman	O-Pinacolyl methylphosphonofluoridate	96-64-0	NA[a]
GA, Tabun	O-Ethyl N,N-dimethyl phosphoramidocyanidate	77-81-6	P902
GF	Cyclohexyl methylphosphonofluoridate	329-99-7	NA
VX	O-Ethyl S(-2-diisopropylaminoethyl) methylphosphonothioate	50782-69-9	P903
H, HD, Mustard Gas	Bis(2-chloroethyl) sulfide	505-60-2	P904
L, L1 Lewisite, Lewisite 1	2-Chlorovinyldichloroarsine	541-25-3	P905
HN1	Bis(2-chloroethyl)ethylamine	538-07-8	P906
HN3	Tris(2-chloroethyl)amine	555-77-1	P907
DM, Adamsite	Phenylarsazine chloride	578-94-9	U901
Q Mustard	1,2-Bis(2-chloroethylthio)ethane	3563-36-8	NA
T Mustard	Bis(2-chloroethylthioethyl) ether	63918-89-8	NA

Common Name(s)	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Lewisite 2	Bis(2-chlorovinyl)chloroarsine	40334-69-8	NA
Lewisite 3	Tris(2-chlorovinyl)arsine	40334-70-1	NA
EA2192	S-(2-diisopropylaminoethyl) methylphosphonothioic acid	73207-98-4	NA
LO, Lewisite oxide[b]	2-Chlorovinylarsenous oxide	3088-37-7	NA
Vx	S-2(2-diethylamino)ethyl O-isobutyl methylphosphonothioate	159939-87-4	NA
CK[c]	Cyanogen chloride	506-77-4	P033
CG[c]	Phosgene	75-44-5	P095
BZ	3-Quinuclidinyl benzilate	13004-56-3	U902
HF[c]	Hydrogen fluoride/Hydrofluoric acid	7664-39-3	U134
Chloroform[c]	Trichloromethane	67-66-3	U044
Arsenic[c]	Arsenic	7440-38-2	NA

[a] NA = not applicable.

[b] LO hydrolyzes to 2-chlorovinylarsonous acid (CVAA) in aqueous systems.

[c] These chemicals are already regulated as hazardous constituents under RCRA; the proposed rule will not affect these listings.

Part R315-50-14. Groundwater Monitoring List

20. Revise Part R315-50-14 as follows:

The requirements of 40 CFR 264, "Appendix IX, Groundwater Monitoring List" are adopted and incorporated by reference.

21. Add a new R315-50-14(1) and add the following compounds to 40 CFR 264 Appendix IX - Groundwater Monitoring Constituents.

(1) The following additions to 40 CFR 264, Appendix IX, are used as indicators of groundwater contamination and are not added to this list because of toxicity or potential harm to human health or the environment:

Groundwater Monitoring Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Indicator for Chemical (by common name)
EMPA	Ethyl methylphosphonic acid	1832-53-7	VX
TDG	Thiodiglycol	111-48-8	HD, HT, HQ, HL
MPA	Methylphosphonic acid	993-13-5	GB, GD, GF, VX, EA2192, IMPA, EMPA
IMPA	Isopropyl methylphosphonic acid	6838-93-3	GB
Arsenic[a]	Arsenic	7440-38-2	L1, L2, L3, DM, LO, HL

[a] Because arsenic is ubiquitous in the environment, monitoring must be designed to determine if concentrations are significantly above background.

This Page Intentionally Left Blank